

WHAT IS CLAIMED IS:

Sub
a1
1. A portable terminal which prestores first and
second identification information to limit the use of a
particular portable data storage medium, which prestores third
5 and fourth identification information, comprising:

first determining means for comparing the third
identification information stored in the data storage medium
with the first identification information stored in the
terminal and for determining based on a result of the comparison
10 whether access to the data storage medium is allowed; and

second determining means, responsive to said first
determining means determining that the access to the data
storage medium is allowed, for reading the fourth
identification information prestored in the data storage
15 medium, comparing this read information with the second
identification information prestored in the terminal, and for
determining based on a result of the last-mentioned comparison
whether access to data in the data storage medium is allowed.

20 2. The portable terminal according to claim 1,
wherein:

the data storage medium further prestores application software
corresponding to the fourth identification information;

the portable terminal comprises means, responsive to
25 said second determining means determining that the access to
the data storage medium is allowed and the terminal being
instructed to start up the application software, for comparing

the fourth identification information corresponding to the application software with the second identification information, and for starting up the application software based on a result of the last-mentioned comparison.

5

3. The terminal according to claim 2, wherein:
the data storage medium prestores a data file accessible through the application software; and comprising:

means for accessing the data file based on the starting
10 up of the application software stored in the data storage medium.

4. The terminal according to claim 1, wherein;
the data file stored in the data storage means contains
15 individually ciphered records, and management information for the data file which is scrambled so as to be descrambled by the terminal.

5. A terminal for accessing a portable data storage
20 medium which contains third and fourth identification information, user authentication information, and basic software which includes basic control information, comprising:

storage means for prestoring first i and second
25 identification information corresponding to the third identification and the fourth identification information, respectively;

first checking means, responsive to the terminal starting up the basic software stored in the data storage medium, for reading the third identification information stored in the data storage medium, and for comparing the third

5 identification information with the first identification information stored in the terminal to check that the terminal is a rightful one authorized to access the data storage medium;

second checking means, responsive to said first checking means checking that the terminal is a rightful one, for
10 accepting input of the user authentication information, and for comparing the input user authentication information with that stored in the data storage medium to check that the user is a rightful one authorized to access to data in the data storage medium; and

15 third checking means, responsive to said second checking means checking that the user is a rightful one, for reading the fourth identification information stored in the data storage medium, and for comparing this fourth identification information with the second identification information
20 prestored in the terminal to check that the terminal is a rightful one authorized to access to data in the data storage medium.

6. The terminal according to claim 5, further
25 comprising:

inhibiting means, responsive to said second checking means comparing the user authentication information being

input to the terminal successively a predetermined number of times in a repeated manner with the operator authentication information stored in the storage medium each time the input authentication information is input to the terminal to

5 determine that the terminal is not a rightful one, and for forcedly deleting the basic operation control information stored in the storage medium to physically inhibit operation of the terminal thereafter.

10 7. A server comprising:

first writing means for writing on a storage medium a data file to be used by a rightful portable terminal and for writing first identification information to limit the access of an unjust terminal to the storage medium and second

15 identification information to limit the access of the unjust terminal to the data file written in the data storage medium on the rightful terminal and the storage medium in order to place the data storage medium and the rightful terminal in rightful corresponding relationship; and

20 second writing means for writing on the storage medium authentication information unique to a rightful user of the rightful terminal to place the storage medium and the user in rightful corresponding relationship.

25 8. A server for writing a data file to be used by a portable terminal on a portable data storage means placed in corresponding relationship to the terminal, comprising:

means for ciphering records of the data file individually;

scrambling means for scrambling the data file of the ciphered records in a form decipherable by the terminal placed
5 in corresponding relationship to the data storage medium; and

writing means for writing the scrambled data file on the data storage medium.

9. The terminal according to claim 8, further
10 comprising:

checking means for checking to see whether the terminal, which accesses the storage medium on which the ciphered and scrambled data file is stored, is a rightful one placed in corresponding relationship to the data storage medium; and

15 means, responsive to said checking means checking that the terminal is the rightful one, for descrambling the data file stored in the storage medium such that the rightful terminal can access the data file, for individually reading ciphered records in the data file, for deciphering the read
20 ciphered records, and for displaying the contents of the deciphered records.

10. A system comprising a portable terminal and a server which writes a data file on a portable data storage
25 medium set in the terminal and placed in corresponding relationship to the terminal, and which distributes a resulting data storage medium to the terminal, wherein:

the server comprises:

ciphering means for individually ciphering records of the data file to be written on the data storage medium; and

5 writing means for writing on the storage medium the data file in which said ciphering means has ciphered the respective records of the data file; and

said terminal comprises:

determining means for determining whether the data storage means set in the terminal is a rightful one placed in
10 corresponding relationship to the terminal;

access control means, responsive to said determining means determining that the storage medium is a rightful one, for allowing the terminal to access the data file of the storage medium; and

15 record processing means, responsive to said access control means allowing the terminal to access the data file of the storage medium, for individually reading the records specified as being accessed, for deciphering the read records, and for displaying the contents of the deciphered records.

20

11. The system according to claim 10, wherein:

said record processing means comprises means for temporarily storing the deciphered records in a temporary memory of the terminal, and means, responsive to the access
25 of the terminal to the data file being terminated or said record processing means terminating its operation, and for erasing the deciphered record in the temporary memory.

12. The system according to claim 10, wherein:

said ciphering means comprises means for individually ciphering records of the data file and fields of each record;

5 and

said record processing means comprises means for ciphering any particular key input as an object to be accessed, for retrieving each of the ciphered records of the data file based on the particular ciphered key when the data file in the storage medium is accessed to individually read records each having fields corresponding to the input key, for deciphering the read records and for displaying the deciphered records.

10

13. The system according to claim 10, wherein:

15

said record processing means is responsive to being instructed to change the records individually read from the data file in the storage medium and deciphered, or being instructed to add a new record to the data file, for changing the deciphered records or adding the new record to the data file, for ciphering the changed records or added record, and for writing on the data storage medium the ciphered records as update information for the data file.

20

14. A recording medium prestoring a computer readable

25

program for controlling a system in which a server writes a data file on a portable storage medium used by a terminal and placed in corresponding relationship to the terminal and

distributes a resulting recording medium to the terminal,
comprising computer readable program codes for:

causing the server to individually cipher records of a
data file to be written on a portable data storage medium set
5 in a portable terminal and placed in corresponding
relationship to the portable terminal;

causing the server to write the data file of ciphered
records on the storage medium;

causing the portable terminal to determine whether the
10 data storage medium set in the terminal is a rightful one placed
in corresponding relationship to the terminal;

in response to the terminal determining that the storage
medium is the rightful one, and allowing the terminal to access
the data file of the storage medium; and

15 in response to allowing the terminal to access the data
file of the storage medium, causing the terminal to
individually read the records specified as being accessed,
deciphering the read records, and displaying the contents of
the deciphered records.

20

15. A system comprising a portable terminal and a
server which writes a data file on a portable data storage
medium set in the terminal and placed in corresponding
relationship to the terminal, and which distributes a
25 resulting data storage medium to the terminal, the server
comprising a memory which prestores a master data file,
the server comprising:

mobile data creating means for extracting records used in the terminal from the master data file and for creating a mobile data file of at least one of the extracted records; and

5 writing means for writing the mobile data file created by said mobile data creating means on the data storage medium, and

said terminal comprises:

10 determining means for determining whether the data storage means set in the terminal is a rightful one placed in corresponding relationship to the terminal; and

access control means, responsive to said determining means determining that the storage medium is the rightful one, for allowing the terminal to access the mobile data file of the storage medium.

15

16. The system according to claim 15, wherein:

when said mobile data creating means extracts the records used by the terminal from the master data file, said mobile data creating means refers to record extract conditions preset to the contents of processing of the terminal, and extracts records meeting the record extract conditions from the master data file.

20

17. The system according to claim 15, wherein:

25 when said mobile data creating means extracts the records used by the terminal from the master data file to create a mobile data file, said mobile data creating means refers to extract

fields preset to the contents of processing of the portable terminal and creates a mobile data file of records of only fields meeting the extract fields.

5 18. The system according to claim 15, wherein:

the storage medium also prestores identification information; and

when said mobile data creating means extracts the records used by the terminal from the master data file, said mobile
10 data creating means gets the identification information prestored in the data storage medium, determines the master data file based on the identification information, determines conditions to extract records from the master data file, and extracts the records from the master data file in accordance
15 with the determined extracting conditions.

19. A server for writing a mobile data file on a portable data storage medium used by a portable terminal, and for distributing it to the terminal, comprising:

20 determining means for determining whether application software to process the mobile data file is stored in corresponding relationship to the mobile data file in the data storage medium; and

writing means, responsive to said determining means
25 determining that the application software is not stored in the data storage medium, for writing the application software on the storage medium in correspondence to the mobile data file.

20. The server according to claim 19, further comprising:

5 determining means, responsive to said determining means determining that the application software is stored in the mobile data file in corresponding relationship to the mobile data file in the data storage medium, for determining whether the application software is the newest one; and

10 updating means, responsive to said determining means determining that the application software is not the newest one, for replacing the application software stored in corresponding relationship to the mobile data file in the data storage medium with the newest application software.

15 21. A recording medium prestoring a computer readable program for controlling a system in which a server writes a data file on a portable storage medium used by a terminal and placed in corresponding relationship to the terminal and distributes a resulting recording medium to the terminal,
20 comprising computer readable program codes for:

causing the server to extract records used in the terminal from a master data file and to create a mobile data file of at least one of the extracted records;

25 causing the terminal to write the created mobile data file on the data storage medium;

causing the terminal to determine whether the data storage means set in the terminal is a rightful one placed in

in response to the terminal determining that the storage medium is a rightful one, allowing the terminal to access the mobile data file of the storage medium.